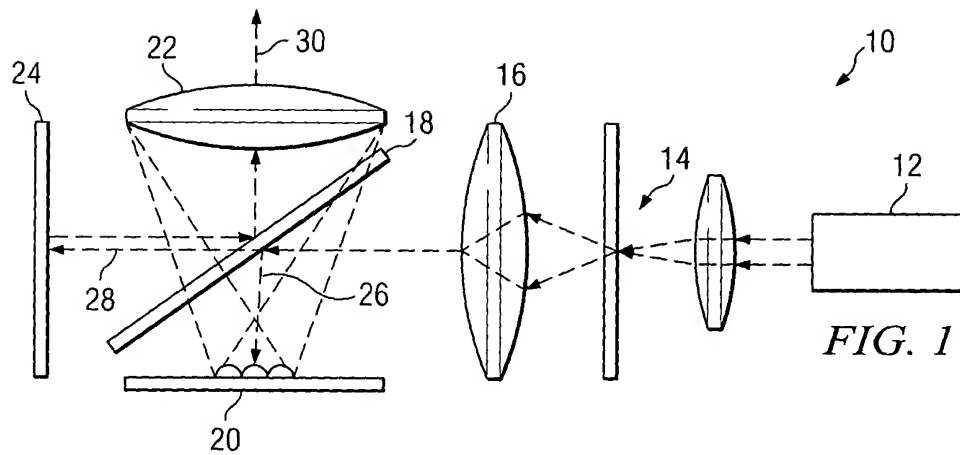SYSTEM AND METHOD FOR DETECTING
DIFFERENCES BETWEEN COMPLEX IMAGES
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Inventor: Edgar Voelkl
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FIG. 1

SYSTEM AND METHOD FOR DETECTING
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FIG. 2

SYSTEM AND METHOD FOR DETECTING
DIFFERENCES BETWEEN COMPLEX IMAGES
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Inventor: Edgar Voelkl
Filing Date: 9/12/2003
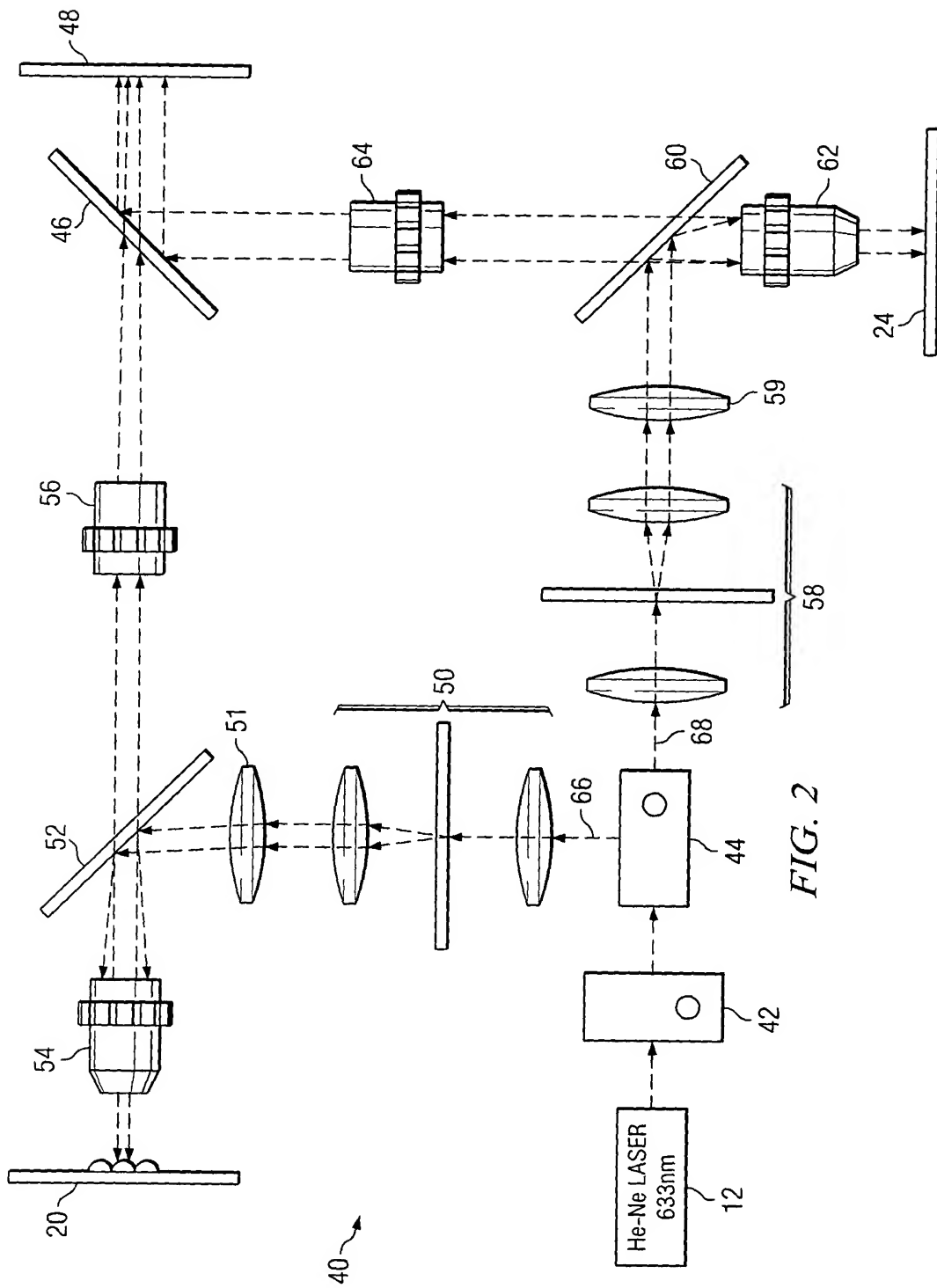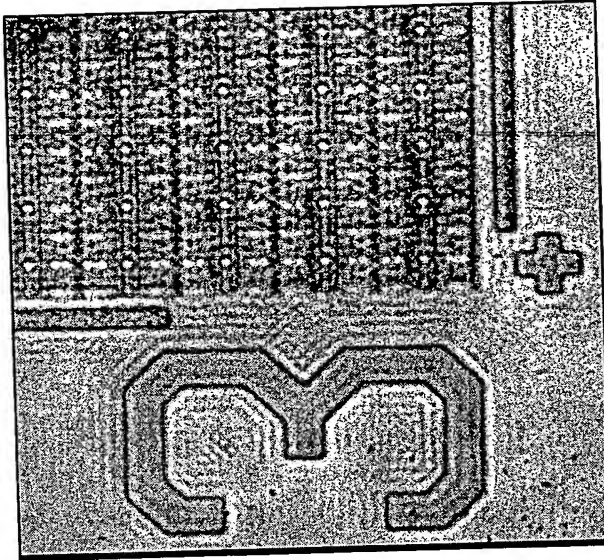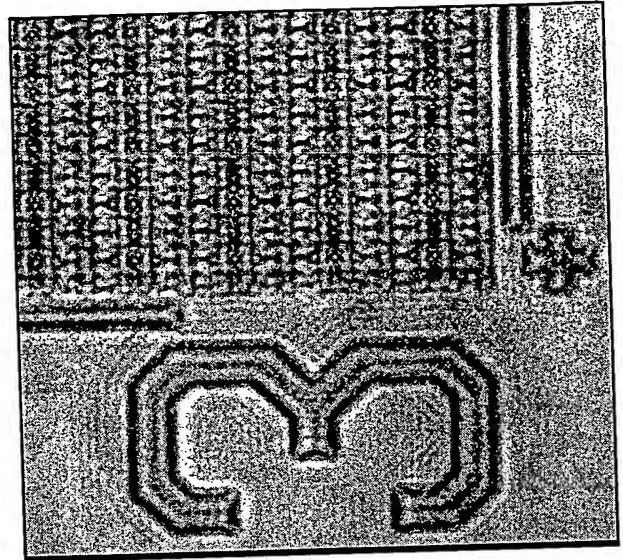Sheets: 3 of 6

32

34

36

FIG. 3

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FIG. 4

SYSTEM AND METHOD FOR DETECTING
DIFFERENCES BETWEEN COMPLEX IMAGES
Atty Dkt: 068062.0167
Inventor: Edgar Voelkl
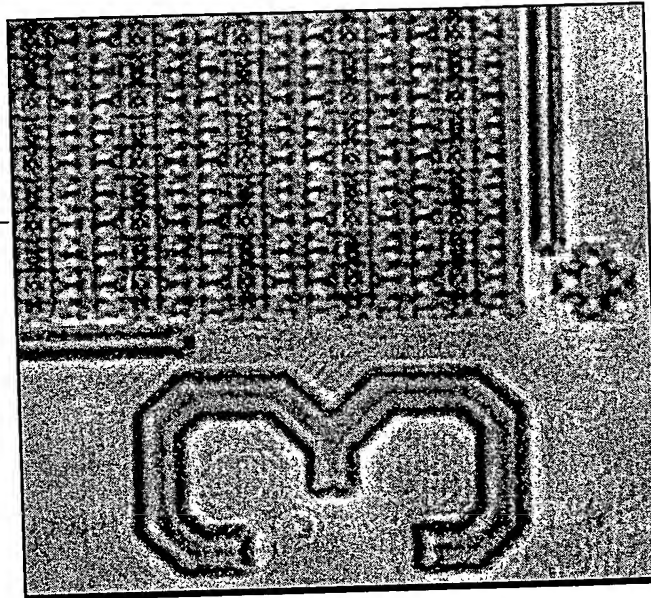Filing Date: 9/12/2003
Sheets: 5 of 6

FIG. 5

SYSTEM AND METHOD FOR DETECTING
DIFFERENCES BETWEEN COMPLEX IMAGES
Atty Dkt: 068062.0167
Inventor: Edgar Voelkl
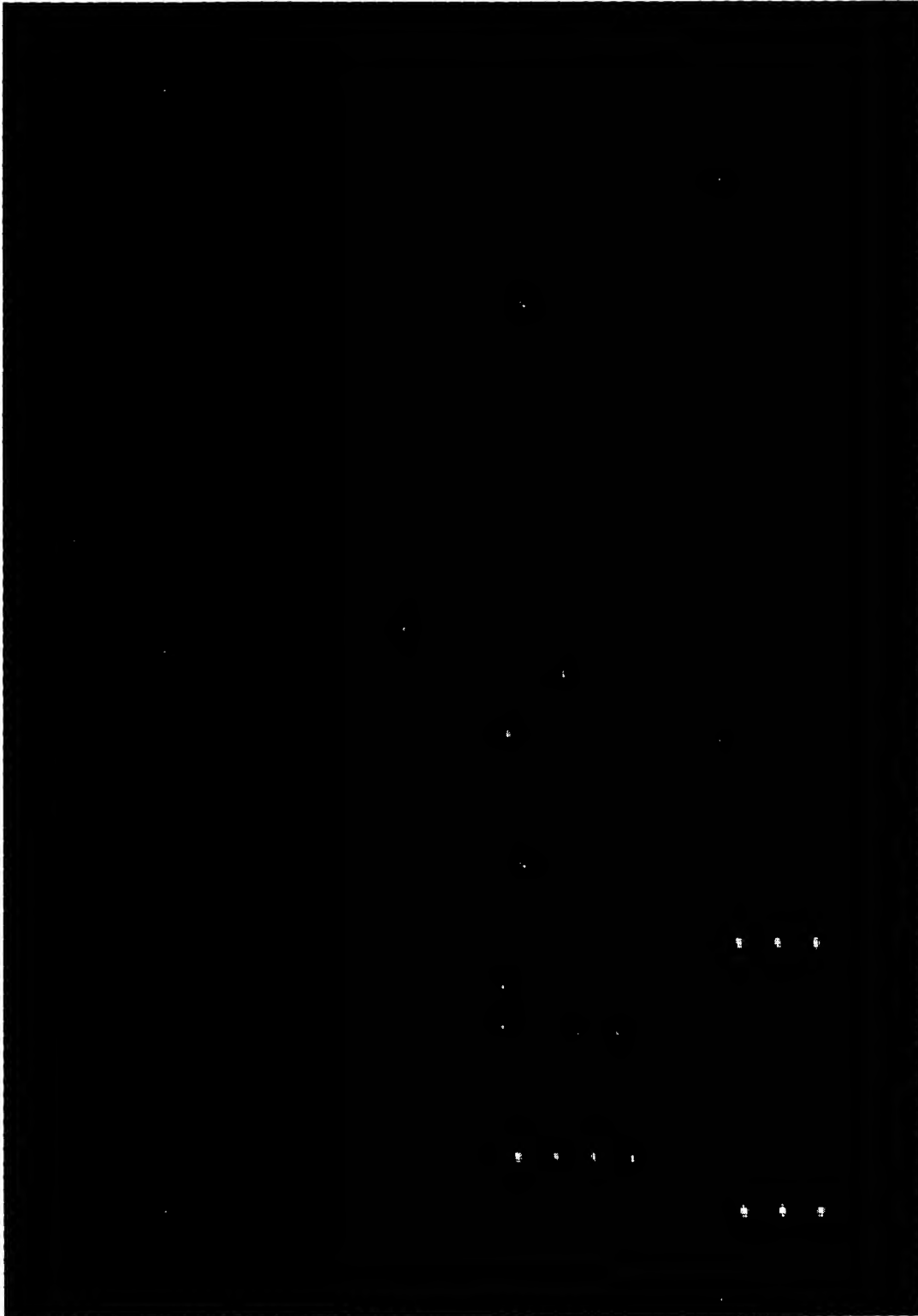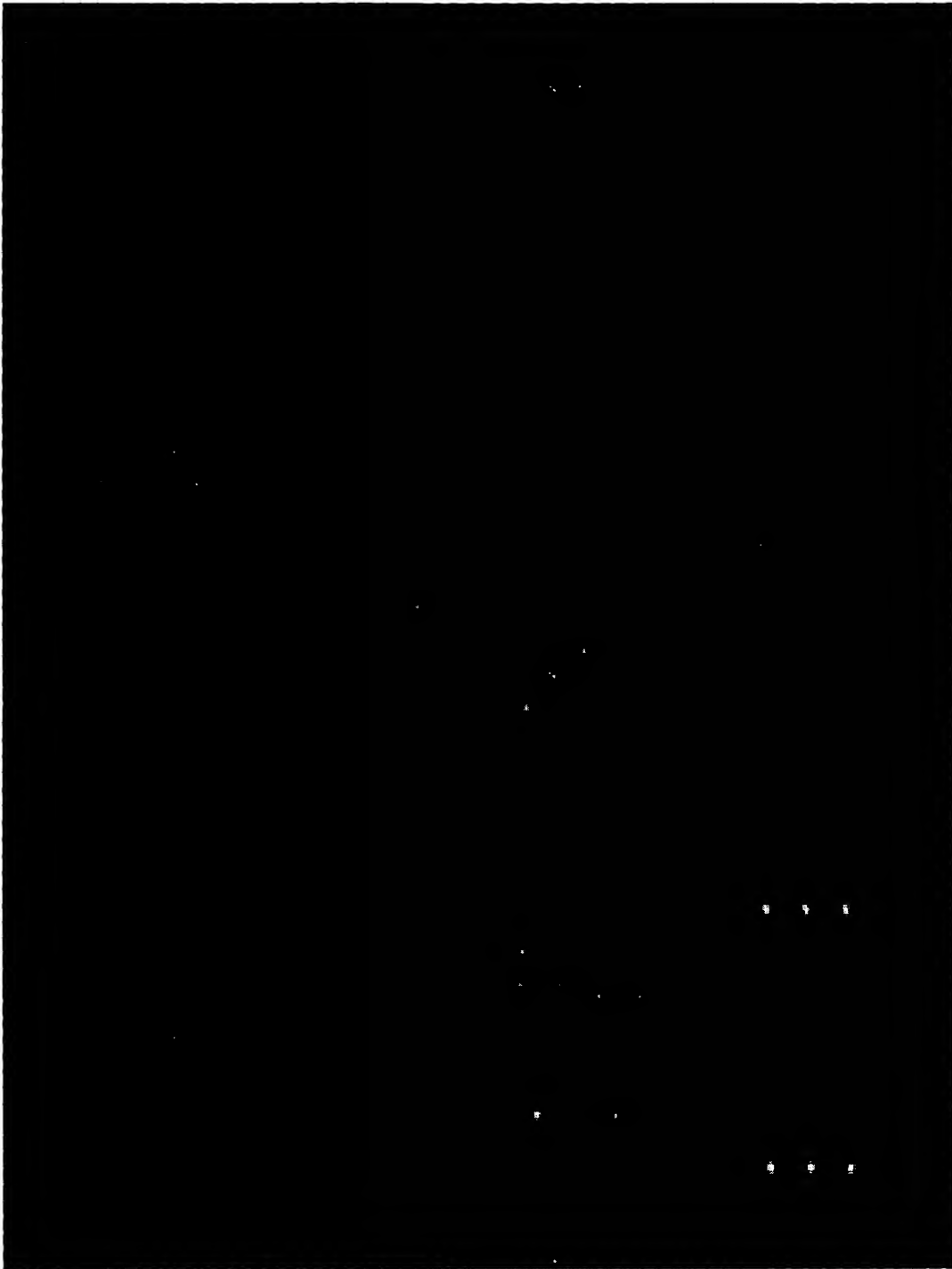Filing Date: 9/12/2003
Sheets: 6 of 6

FIG. 6

START

OBTAIN FIRST COMPLEX IMAGE — 70

OBTAIN SECOND COMPLEX IMAGE — 72

ABERRATION CORRECTION NEEDED? — 73 → NO

↓ YES

DETERMINE ANTICIPATED ABERRATION RANGE — 74

SELECT AT LEAST TWO ABERRATION VALUES FROM RANGE — 76

COMPUTE ABERRATION FUNCTION FOR EACH OF THE SELECTED ABERRATION VALUES — 78

MODIFY FIRST COMPLEX IMAGE BY ONE OF THE ABERRATION FUNCTIONS — 80

COMPARE ONE OF THE MODIFIED FIRST COMPLEX IMAGES WITH THE SECOND COMPLEX IMAGE — 82

RESULT OF COMPARISON YIELD SMALLEST DIFFERENCE? — 84 → NO → MODIFY FIRST COMPLEX IMAGE BY ANOTHER ONE OF THE ABERRATION FUNCTIONS — 83

↓ YES

APPLY ABERRATION CORRECTION TO FIRST COMPLEX IMAGE — 86

CALCULATE A RATIO OF THE MODIFIED FIRST COMPLEX IMAGE AND THE SECOND COMPLEX IMAGE — 88

APPLY LOW FREQUENCY FILTER TO THE RATIO TO OBTAIN LOW FREQUENCY RATIO — 90

MODIFY SECOND COMPLEX IMAGE BY LOW FREQUENCY RATIO — 92

COMPARE MODIFIED FIRST COMPLEX IMAGE TO MODIFIED SECOND COMPLEX IMAGE — 94

MODIFIED IMAGES EQUAL? — 96 → NO → RECORD DIFFERENCE IN IMAGES — 100

↓ YES

RECORD FIRST AND SECOND COMPLEX IMAGES — 98

END